REMARKS

Claims 86-94 are pending in this application and stand rejected on grounds of lack of sufficient written description. The basis for the rejection is that, although the specification describes a sequence of 327 amino acids (SEQ ID NO:8), a sequence of 23 amino acids (SEQ ID NO:9) and the functional portion of these sequences (the binding sequence of SEQ ID NO:5), the specification does not describe fragments of SEQ ID NO:8 that bind via the binding sequence of SEQ ID NO:5. In essence, the Office is stating that these fragments have no apparent predictability of structure or function.

Applicants believe that the structure of these peptide fragments is literally described since the structural information (sequence) of every possible claimed fragment is readily deduced from the complete sequence provided. The complete sequence is known and given in the specification as filed. What is more, the function of the fragments is provided since the claims are limited only to fragments that contain the binding sequence of SEQ ID NO:5, that bind to or interact with a nuclear receptor via this sequence, and that are fragments of a finite, known sequence (SEQ ID NO:8). Applicants are not claiming any and all sequences that contains the seven amino acids of SEQ ID NO:5. Applicants are claiming only fragments of the known and described SEQ ID NO:8 that contain SEQ ID NO:5 and that have the function of interacting with a nuclear receptor. Since the claim is directed to a screening method that is dependent on physical interaction, this is the function of the sequences that are claimed. This function is recited in the claims, as well. Applicants also have amended claims 86 and 91 to recite that the PNRC molecule binds a liganded nuclear receptor. These amendments are supported by

numerous disclosures in the specification as filed and particularly at page 8, line 20. Therefore, Applicants respectfully submit that the fragments that are claimed are described in both structural terms, since the full sequence is given, and in functional terms since the binding region and the binding activity are fully described. The claims are limited to those fragments.

The Office argues that a skilled artisan would not recognize that Applicants had possession of all the fragments that are claimed. However, Applicants submit that, having read the disclosures of the specification as filed, any skilled artisan could perform the methods as they are claimed using SEQ ID NO:8, SEQ ID NO:9 or using fragments of SEQ ID NO:8. Once the disclosures of this specification are known (that both SEQ ID NO:8 and SEQ ID NO:9 are useful in the method and that the binding region is SEQ ID NO:5) the skilled artisan would find it obvious to use fragments of these sequences to perform the method with a reasonable chance of success, since it is the binding region of SEQ ID NO:5 which mediates the function of the screening method. For example, a fragment of SEQ ID NO:8 that contained SEQ ID NO:9 and additional amino acids would be one obvious choice.

The specification clearly describes what the common function of the sequences is and how the interaction of the PNRC molecule is dependent on the motif of SEQ ID NO:5. See specification, for example at page 8, lines 7-9 and lines 20-22. It would have been clear to any skilled reader that any sequence which has the function recited in the claim could be used in the invention. That is what Applicants claim. Furthermore, no skilled artisan would hesitate to perform the methods with the fragments that are

claimed, knowing that they all interact with the nuclear receptor.

Certainly, at the very least, no skilled artisan would doubt that fragments of SEQ ID NO:8 which contains the 23-amino acid sequence of SEQ ID NO:9 could be used in the methods. Applicants have added news claim 95 and 96 with this response. This claim is based on the main claim (claim 86) but contains amendments to the preamble. Claim 95 recites methods wherein the PNRC molecule is selected from the group consisting of SEQ ID NO:8 and a fragment thereof, wherein the PNRC molecule contains SEQ ID NO:9 and wherein the PNRC molecule binds a liganded nuclear receptor. Claim 96 recites methods wherein the PNRC molecule is SEQ ID NO:8. This amendment is supported by the specification at page 8, lines 7-8 and 20, which describe the core ligand motif of SEQ ID NO:5 and the interaction of liganded nuclear receptor. Applicants also refer to Example 6, which begins on page 16 of the specification. This example shows that clones expressing fragments of varying lengths demonstrated the claimed function of binding ability to a nuclear receptor, including $PNRC_{278-300}$ (number 10 in Figure 5B), which is SEQ ID NO:9.

Applicants request that the Office reconsider the claims now pending and new claims 95 and 96, and allow the application to proceed to issuance at this time. If any issues remain outstanding or if the Examiner would like to discuss the allowability of the claimed subject matter, he is invited to contact the undersigned.

Respectfully submitted,

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